CLAIMS

What is claimed is:

1. In a client system, an automated method for assisting a user of the client system in retrieving and browsing information, the method comprising:

determining based at least in part on a locator of a first information page requested to be retrieved and displayed, whether to provide information browsing assistance, said locator identifying the first information page and a location from which the first information page is to be retrieved; and

conditionally providing said information browsing assistance based at least in part on said determination.

2. The method of claim 1, wherein said locator is a uniform resource locator (URL).

3. The method of claim 1, wherein said determining comprises analyzing whether a locator based condition for providing information browsing assistance is met.

4. The method of claim 1, wherein

said locator is a uniform resource locator (URL);

said determining comprises analyzing whether said URL satisfies a URL based condition for providing information browsing assistance is met.

5. The method of claim 4, wherein

each URL based condition comprises a URL pattern specifying a family of URLs; and

said analysis comprises matching said URL against a plurality of URL patterns.

6. The method of claim 5, wherein

each URL pattern comprises a plurality of portions correspondingly stored in a plurality of nodes of a tree data structure, with the plurality of nodes having a child leaf node specifying information browsing assistance to be provided; and

said matching comprises traversing said tree data structure.

7. The method of claim 6, wherein the method further comprises downloading said tree data structure from a server system onto said client system.

8. The method of claim 5, wherein the method further comprises downloading said URL patterns and their corresponding information browsing assistance specifications from a server system onto said client system.

9. The method of claim 4, wherein the method further comprises downloading said URL based conditions and their corresponding information browsing assistance specifications from a server system onto said client system.

10. The method of claim 1, wherein said information browsing assistance comprises displaying a second information page.

11. The method of claim 10, wherein said second information page effectively replaces said first information page.

12. The method of claim 10, wherein said second information page is additionally displayed complementing said first information page.

13. The method of claim 10, wherein said second information page comprises a plurality of locators identifying a plurality of information pages and corresponding locations from which the identified information pages of said second information page are to be retrieved.

14. The method of claim 1, wherein said information browsing assistance comprises modifying an environment attribute of the browsing environment within which said determining and conditional provision of information browsing assistance are performed.

15. The method of claim 14, wherein said environment attribute is an environment attribute selected from a group of environment attributes comprising a display resolution attribute, a color resolution attribute, a font selection attribute, a media player preference attribute, an add-on selection attribute, and a plug-in selection attribute.

16. The method of claim 1, wherein the method further comprises receiving a request to retrieve and display said first information page, said request including said locator.

17. The method of claim 16, wherein the method further comprises

in response to said receive of a request, notifying a monitor function of a browser helper of said receipt; and

said monitor function, in response to receipt of said notification, notifying an analyzer function of said browser helper, which performs said determining and conditional provision of information browsing assistance.

18. The method of claim 17, wherein the method further comprises executing said monitor function as an extension of a browser, and executing said analyzer function external to said browser.

19. An apparatus comprising:

storage medium having stored therein executable instructions designed to enable the apparatus to

determine based at least in part on a locator of a first information page requested to be retrieved and displayed, whether to provide information browsing assistance, said locator identifying the first information page and a location from which the first information page is to be retrieved, and

conditionally provide said information browsing assistance based at least in part on said determination; and

at least one processor coupled to the storage medium to execute the executable instructions.

20. The apparatus of claim 19, wherein said locator is a uniform resource locator (URL).

21. The apparatus of claim 19, wherein said executable instructions are designed to enable the apparatus to perform said determining by analyzing whether a locator based condition for providing information browsing assistance is met.

22. The apparatus of claim 19, wherein

said locator is a uniform resource locator (URL); and

said executable instructions are designed to enable the apparatus to perform said determining by analyzing whether said URL satisfies a URL based condition for providing information browsing assistance is met.

23. The apparatus of claim 22, wherein

each URL based condition comprises a URL pattern specifying a family of URLs; and

said executable instructions are designed to enable the apparatus to perform said analysis by matching said URL against a plurality of URL patterns.

24. The apparatus of claim 23, wherein

each URL pattern comprises a plurality of portions correspondingly stored in a plurality of nodes of a tree data structure, with the plurality of nodes having a child leaf node specifying information browsing assistance to be provided; and

said executable instructions are designed to enable the apparatus to perform said matching comprises traversing said tree data structure.

25. The apparatus of claim 19, wherein said executable instructions are designed to enable the apparatus to provide said information browsing assistance by displaying a second information page.

26. The apparatus of claim 25, wherein said executable instructions are designed to enable the apparatus to display said second information page in a manner that effectively replaces said first information page.

27. The apparatus of claim 25, wherein said executable instructions are designed to enable the apparatus to additionally display said second information page complementary to said first information page.

28. The apparatus of claim 25, wherein said second information page comprises a plurality of locators identifying a plurality of information pages and corresponding locations from which the identified information pages of said second information page are to be retrieved.

29. The apparatus of claim 19, wherein said executable instructions are designed to enable the apparatus to provide said information browsing assistance by modifying an environment attribute of the browsing environment within which said determining and conditional provision of information browsing assistance are performed.

30. The apparatus of claim 29, wherein said environment attribute is an environment attribute selected from a group of environment attributes comprising a display resolution attribute, a color resolution attribute, a font selection attribute, a

media player preference attribute, an add-on selection attribute, and a plug-in selection attribute.

31. The apparatus of claim 19, wherein said executable instructions are further designed to enable the apparatus to receive a request to retrieve and display said first information page, said request including said locator.

32. The apparatus of claim 31, wherein said executable instructions are designed to implement a browser helper including at least a monitor function and an analyzer function, with the monitor function of the browser helper being designed to receive a notification of said receipt, and in response, notifying said analyzer function of receipt of said notification, and said analyzer function in turn performs said determining and conditional provision of information browsing assistance.

33. The apparatus of claim 32, wherein said executable instructions are designed to implement said monitor function as an extension of a browser, and said analyzer function as an external function to said browser.

34. The apparatus of claim 33, wherein the apparatus is a selected one of a wireless telephone, a palm sized personal digital assistant, a notebook computer, a desktop computer, and a set top box.

35. In a first server system, a method of operation comprising:

receiving a request from a client system for executable instructions designed to enable the client system to conditionally provide information browsing assistance based at least in part on a locator of a first information page requested to be

retrieved and displayed, said location identifying said first information page and a location from which said first information page is to be retrieved; and

in response, providing said client system with said requested executable instructions.

36. The method of claim 35, wherein said locator is a uniform resource locator (URL).

37. The method of claim 35, wherein said executable instructions are designed to perform a selected one of (a) enabling the client system to determine whether a locator based condition for providing information browsing assistance is met, and (b) enabling the client system to provide said locator to a second server system for the second server system to determine for said client system whether a locator based condition for providing information browsing assistance is met.

38. The method of claim 37, wherein said first and second server systems are the same server system.

39. The method of claim 35, wherein

said locator is a uniform resource locator (URL); and

said executable instructions are designed to perform a selected one of (a) to enable the client system to determine whether said URL satisfies a URL based condition for providing information browsing assistance is met, and (b) to enable the client system to provide said URL to a second server system for the second server system to determine for said client system whether a locator based condition for providing information browsing assistance is met.

40. The method of claim 39, wherein

each URL based condition comprises a URL pattern specifying a family of URLs; and

either (a) said executable instructions are designed to enable the client system to match said URL against a plurality of URL patterns, or (b) the method further comprises a second server system matching said URL against a plurality of URL patterns for said client system.

41. The method of claim 40, wherein

each URL pattern comprises a plurality of portions correspondingly stored in a plurality of nodes of a tree data structure, with the plurality of nodes having a child leaf node specifying information browsing assistance to be provided; and

either (a) said executable instructions are designed to enable the client system to perform said matching by traversing said tree data structure, or (b) the method further comprises a second server system performing said matching by traversing said tree data structure for said client system.

42. The method of claim 35, wherein either (a) said executable instructions are designed to enable the client system to provide said information browsing assistance by displaying a second information page or (b) the method further comprises a second server system providing said information browsing assistance to said client system by causing a second information page to be displayed on said client system.

43. The method of claim 42, wherein said second information page is displayed in a manner that effectively replaces said first information page.

44. The method of claim 42, wherein said second information page is additionally displayed in a manner that is complementary to said first information page.

45. The method of claim 42, wherein said second information page comprises a plurality of locators identifying a plurality of information pages and corresponding locations from which the identified information pages of said second information page are to be retrieved.

46. The method of claim 35, wherein either (a) said executable instructions are designed to enable the client system to provide said information browsing assistance by modifying an environment attribute of the browsing environment of said client system, or (b) the method further comprises a second server system providing said information browsing assistance to said client system by modifying an environment attribute of the browsing environment of said client system.

47. The method of claim 46, wherein said environment attribute is an environment attribute selected from a group of environment attributes comprising a display resolution attribute, a color resolution attribute, a font selection attribute, a media player preference attribute, an add-on selection attribute, and a plug-in selection attribute.

48. The method of claim 35, wherein said executable instructions are designed to implement a browser helper including at least a monitor function, designed to

receive a notification of a receipt of a request for said first information page, and in response, notifying a analyzer function of receipt of said notification.

49. The method of claim 48, wherein either (a) said browser helper further includes said analyzer function to perform said conditional provision of information browsing assistance, in response to receipt of said notification, or (b) the method further a second server having said analyzer function to perform said conditional provision of information browsing assistance for said client system, in response to receipt of said notification from said client system.

50. A server system comprising:

storage medium having stored therein at least a selected one of

(a) first executable instructions designed to enable a first client system to conditionally provide information browsing assistance to itself based at least in part on a first locator of a first information page requested to be retrieved and displayed, and

second executable instructions designed to provide the first client system with said first executable instructions in response to a request by the first client system for said first executable instructions, and

(b) third executable instructions designed to enable the server system to conditionally provide information browsing assistance to a second client system based at least in part on a second locator of a second information page requested to be retrieved and displayed for said second client system,

said first and second locators identifying said first and second information pages, and a first and a second location from which said first and second information pages are to be retrieved respectively; and

at least one processor coupled to the storage medium to execute at least one of said second and third executable instructions.

51. The server system of claim 50, wherein said locator is a uniform resource locator (URL).

52. The server system of claim 50, wherein

said first executable instructions are designed to enable the first client system to determine whether a first locator based condition for providing information browsing assistance is met, and

said third executable instructions are design to enable the server system to determine for said second client system whether a second locator based condition for providing information browsing assistance is met.

53. The server system of claim 50, wherein

each of said first and second locators is a uniform resource locator (URL);

said first executable instructions are designed to enable the first client system to determine whether said first URL satisfies a first URL based condition for providing information browsing assistance is met; and

said third executable instructions are design to enable the server system to determine for said second client system whether a second locator based condition for providing information browsing assistance is met.

54. The server system of claim 53, wherein

each URL based condition comprises a URL pattern specifying a family of URLs;

said first executable instructions are designed to enable the first client system to match said first URL against a first plurality of URL patterns; and

said third executable instructions are design to enable the server system to match said second URL against a second plurality of URL patterns for said second client system.

55. The server system of claim 54, wherein

each URL pattern comprises a plurality of portions correspondingly stored in a plurality of nodes of a tree data structure, with the plurality of nodes having a child leaf node specifying information browsing assistance to be provided; and

said first executable instructions are designed to enable the first client system to perform said matching by traversing a first tree data structure;

said third executable instructions are designed to enable the server system to perform said matching by traversing a second tree data structure for said second client system.

56. The server system of claim 50, wherein

said first executable instructions are designed to enable the first client system to provide said information browsing assistance by displaying a second information page; and

said third executable instructions are designed to enable the server system to provide said information browsing assistance to said client system by causing a second information page to be displayed on said client system.

57. The server system of claim 56, wherein said second information page is displayed in a manner that effectively replaces said first information page.

58. The server system of claim 56, wherein said second information page is additionally displayed in a manner that is complementary to said first information page.

59. The server system of claim 56, wherein said second information page comprises a plurality of locators identifying a plurality of information pages and corresponding locations from which the identified information pages of said second information page are to be retrieved.

60. The server system of claim 50, wherein

said first executable instructions are designed to enable the first client system to provide said information browsing assistance by modifying a first environment attribute of the browsing environment of said first client system; and

said third executable instructions are designed to enable the server system to provide said information browsing assistance to said client system by modifying a second environment attribute of the browsing environment of said second client system.

61. The server system of claim 60, wherein each of said first and second environment attributes is an environment attribute selected from a group of environment attributes comprising a display resolution attribute, a color resolution attribute, a font selection attribute, a media player preference attribute, an add-on selection attribute, and a plug-in selection attribute.

62. The server system of claim 50 wherein said first executable instructions are designed to implement a browser helper including at least a monitor function, designed to receive a notification of a receipt of a request for said first information page, and in response, notifying a analyzer function of receipt of said notification.

63. The server system of claim 62, wherein said browser helper further includes said analyzer function to perform said conditional provision of information browsing assistance, in response to receipt of said notification.